

## ===== WPI =====

TI - Aerosol type hair styling agent prepn. - involves treating (meth) acrylate]-(meth)acrylamide] copolymer with haloacetate then hydrolysing quat. reaction prod.

AB - J04091016 At least 50 mol.% of N-contg. monomer (A) of the copolymer is quaternised by use of halo acetic acid ester. Then, it is made amphoteric by hydrolysis. The copolymer is made using (A) 35-70 wt.% of monomer (A) of formula (I) (where R<sub>1</sub> = H or methyl, R<sub>2</sub> = 3-6C alkylene having one or more methyl side chain); (B) 5-60 wt.% of monomer (B) of formula (II) (where R<sub>3</sub> = 1-4C alkyl); (C) 5-45 wt.% of monomer (C) of formula (III) (where R<sub>4</sub> = 5-24C alkyl or 5-24C cycloalkyl); (D) 0-20 wt.% N-vinylpyrrolidone; and (E) 0-20 wt.% of monomer (A)-(C) and ethylene unsatd. monomer other than N-vinylpyrrolidone.

- USE - The agent is quite smoothly and uniformly sprayed. The agent is easily washed away by shampoo. It also has excellent blocking resistance property at high temp. and high humidity. It has good affinity to hair. Irritation is minimised.
- (Dwg. 0/0)

PN - JP4091016 A 19920324 DW199218 010pp

PR - JP19900206983 19900803

PA - (OSAY-N) OSAKA YUKI KAGAKU KOGYO KK

MC - A04-D04A A04-F06E5 A10-E A10-E09 A12-V04A D08-B03 D08-B04 D08-B05

DC - A96 D21

IC - A61K7/06

AN - 1992-147945 [18]

## ===== PAJ =====

TI - PRODUCTION OF HAIRDRESSING FOR AEROSOL

AB - PURPOSE: To obtain a hairdressing resin, improved in compatibility with natural gas, capable of assuming water solubility and excellent in homogeneity of physical properties by quaternizing a copolymer containing a specific amine-based compound as a copolymerization component with a haloacetic acid ester, then hydrolyzing the resultant quaternary compound and converting the quaternary compound into an amphoteric substance.

- CONSTITUTION: A hairdressing agent is obtained by copolymerizing (A) 35-70wt.% monomer expressed by formula I (R<1> is H or methyl; R<2> is 3-6C alkylene having >=1 methyl side chains) with (B) 5-60wt.% monomer expressed by formula II (R<3> is 1-4C alkyl), (C) 5-45wt.% monomer expressed by formula III (R<4> is 5-24C alkyl or 5-24C cycloalkyl), (D) 0-20wt.% N-vinylpyrrolidine and (E) 0-20wt.% ethylenically unsaturated monomer other than the ingredients (A) to (D) in a hydrophilic solvent, preferably in the presence of an azo-based polymerization initiator, reacting the resultant copolymer with a haloacetic acid ester, quaternizing at least 50mol% of N atoms derived from the monomer (A), then hydrolyzing the prepared quaternary compound and converting the quaternary compound into an amphoteric substance. The aforementioned resin has a great affinity for hair and is excellent in hairdressing effects without causing flaking phenomena.

PN - JP4091016 A 19920324

PD - 1992-03-24

ABD - 19920714

ABV - 016320

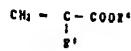
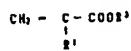
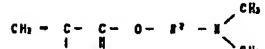
AP - JP19900206983 19900803

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PA - OSAKA ORGANIC CHEM IND LTD

IN - UCHIYAMA YUUJIROU; others: 01

I - A61K7/06



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